REMARKS

Claims 1, 11, 14, 17, and 27 have been amended and Claims 12-13, 15-16, 30 have been canceled without prejudice.

The headings below are numbered to correspond with the heading numbering used by the Examiner in the Office Action.

3) Claims 1-11, 14, 17-29 are novel over a Goebel (5,901,317).

Applicant notes that amended Claim 1 recites:

> A method comprising:
> adding direction to interference edges of a register interference graph, wherein each interference edge extends between two nodes of said register interference graph, said adding direction comprising:
> for each node of each interference edge,
> **determining whether a variable associated with said node was live when an other variable associated with the other node of said two nodes was defined or used;**
> **wherein upon a determination that said variable associated with said node was live when said other variable associated with said other node was defined or used, said first node is a primary node; and**
> **defining an interference edge adjacent a primary node as a pass edge;**
> **defining a pass degree of each node as the number of pass edges of said node;** and
> choosing a node of said register interference graph to spill based upon said pass degree of said node. (Emphasis added.)

As set forth by Applicant at page 11 of the Amendment filed on February 15, 2005:

> Thus, as set forth above, Goebel teaches vectors that represent primary edges denoting common latency between the contents of two registers and secondary edges denoting a secondary conflict between the contents of two nodes. However, the Examiner has failed to callout where Goebel teaches or suggests adding **direction** to either the primary or secondary edges.

In response to the Applicant's argument, the Examiner states:

> The applicant should also note that a **vector, by definition, has direction**. Therefore, both links have direction. (Office Action, page 2, emphasis in original.)

Assuming for purposes of argument only, that "a vector, by definition, has direction", the Examiner has failed to callout where Goebel teaches or suggests why a vector would have direction or in which direction the vector would go.

For at least the above reasons, Goebel does not teach or suggest:

> A method comprising:
> adding direction to interference edges of a register interference graph, wherein each interference edge extends between two nodes of said register interference graph, said adding direction comprising:
> for each node of each interference edge, **determining whether a variable associated with said node was live when an other variable associated with the other node of said two nodes was defined or used;**
> **wherein upon a determination that said variable associated with said node was live when said other variable associated with said other node was defined or used, said first node is a primary node; and**
> **defining an interference edge adjacent a primary node as a pass edge;**
> **defining a pass degree of each node as the number of pass edges of said node;** and
> choosing a node of said register interference graph to spill based upon said pass degree of said node,

as recited in Claim 1, emphasis added. Accordingly, Claim 1 is allowable over Goebel.

As set forth in Applicant's specification at page 12, line 12-15:

By using the pass degree, the variable that caused the greatest interference with allocation of the variables to the physical registers is preferentially chosen to be spilled.

Claims 2-10, which depend from Claim 1, are allowable for at least the same reasons as Claim 1. Claims 11, 14, 17 and 27 are allowable for reasons similar to Claim 1. Claims 18-26, which depend from Claim 17, are allowable for at least the same reasons as Claim 17. Claims 28 and 29, which depend from Claim 27, are allowable for at least the same reasons as Claim 27.

For the above reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection.
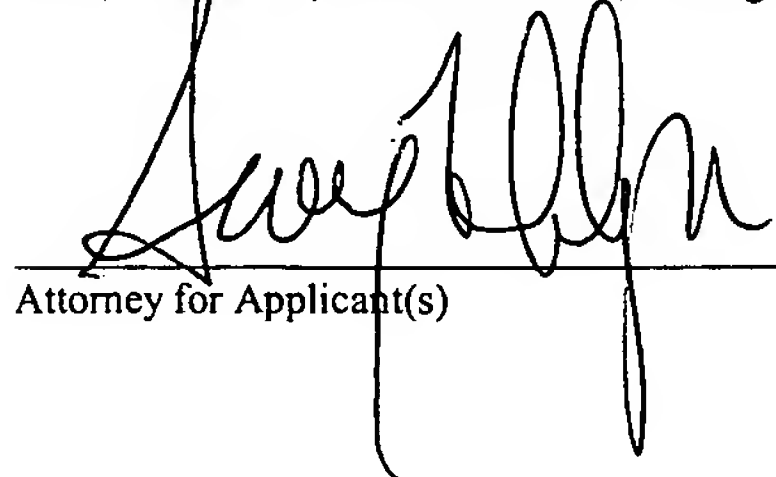
Request for Examiner Interview.

Co-filed herewith is an Applicant Initiated Interview Request form. If the Examiner's position is that this Amendment does not place the application in a condition for allowance, Applicant requests an Examiner interview.

Conclusion

Claims 1-11, 14, 17-29 are pending in the application. For the foregoing reasons, Applicant respectfully requests allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant(s).
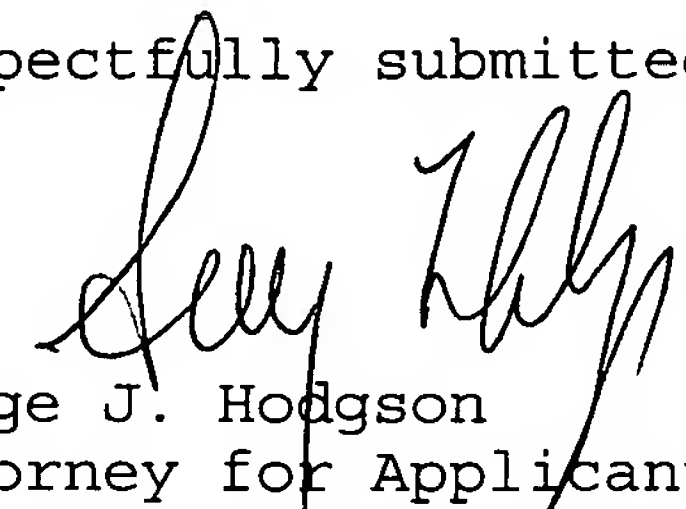
Respectfully submitted,

Serge J. Hodgson
Attorney for Applicant(s)
Reg. No. 40,017
Tel.: (831) 655-0880